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EXAMINER

VO, HUYEN X

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/835,237	Applicant(s) KOMMER, ROBERT VAN	
	Examiner HUYEN X. VO	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09 March 2009.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-5, 7-24, 26-28 and 30-64 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-5, 7-24, 26-28, 30-50, and 51-64 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 13 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by claim amendments.
2. Applicant's arguments have been fully considered but they are not persuasive. User-specific models are originally constructed for the speech recognizer (*the operation of figure 4; particularly steps 122-124*). At runtime, new speech data is received (*step 140 in figure 5*) and are used to train speaker-dependent data (*referring to the operation of figure 5; for detailed discussion of speaker adaptation, referring to col. 9, line 29 to col. 10, line 67*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-5, 7-12, 15, 18-24, 26-28, 30-39, 42-50, 52, and 53-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al. (US 6792086) in view of Kuhn et al. (US 6341264).

5. Regarding claims 1, 30, and 53-65, Saylor et al. disclose a voice portal hosting system, intended to be connected to a first voice telecommunication network in order for a plurality of users in said network to establish a connection with the system using voice equipment in support of the ordering of products and/or services from any of a plurality of independent value-added service providers, said system comprising:

a memory in which a plurality of interactive voice response applications providing interactive response functionality is stored, each of said applications including an executable component for execution by said hosting system (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45*);

a common speech recognition module (*voice to text system 62 in figure 3*);

a user identification module for identifying a user (*col. 7, line 58 to col. 8, line 15*);

uploading means for independently uploading said plurality of interactive voice response applications, to said system in advance of any ordering of said products and/or services, by said plurality of independent value-added service providers (*col. 20, line 64 to col. 21, line 45 and or referring to figure 3, content provider 70 provides information to VPAGE Server 22; uploading information to the central server before it could be retrieved by the user*), and wherein the identified user interacts with one or more of said interactive voice response application (*col. 8, lines 1-38, identified is allowed to access voice services*), and wherein each of said interactive voice response applications includes an executable component for execution by said hosting system

(VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45; these are executable components).

Saylor et al. fail to specifically disclose means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module; means for retrieving the user-specific speech model of the identified user from said plurality of models; and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user; said user-specific speech model is further adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized for future ordering of products and/or services from any other of said service providers.

However, Kuhn et al. teach means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module (*figure 7, speaker adaptation*); means for retrieving the user-specific speech model of the identified user from said plurality of models (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and said user-specific speech model is further adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized

for future ordering of products and/or services from any other of said service providers (*referring to the operation of figure 5 and/or col. 9, line 29-67; using input speech data to adapt speaker-dependent models for the user*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to improve speech recognition accuracy by using user-specific speech models.

6. Regarding claim 50, Saylor et al. disclose a method for allowing each of a plurality of independent value-added service providers to set up an interactive voice response applications each including an executable component for execution by a voice portal hosting system commonly used by said plurality of valued-added service providers and which can be used by a plurality of users (*the operation of figure 1, multiple users access voice services at the server having a common speech recognizer, and independent service providers connected to the server providing voice response applications*), said method comprising the steps of:

independently uploading, through a second telecommunication network, said interactive voice response applications to said system for providing interactive voice response functionality (*col. 20, line 64 to col. 21, line 45 and or referring to figure 3, content provider 70 provides information to VPAGE Server 22*);

identifying a user calling said system (*col. 7, line 58 to col. 8, line 15*);

retrieving speech models for the speech recognizer (*voice to text system 62 in figure 3, uses system speech recognition models to recognize speech*);

executing one or more of said voice response applications in response to the user calling said system (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45*), said executing including interacting with said user via said common speech module using said retrieved speech model for recognizing the speech of the user (*voice to text system 62 in figure 3, uses system speech recognition models to recognize speech*), wherein each of said interactive voice response applications includes an executable component for execution by said hosting system (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45; these are executable components*).

Saylor et al. fail to specifically disclose means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module; means for retrieving the user-specific speech model of the identified user from said plurality of models; and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user; said user-specific speech model is further adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized for future ordering of products and/or services from any other of said service providers.

However, Kuhn et al. teach means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module (*figure 7, speaker adaptation*); means for retrieving the user-specific speech model of the identified user from said plurality of models (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and said user-specific speech model is further adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized for future ordering of products and/or services from any other of said service providers (*referring to the operation of figure 5 and/or col. 9, line 29-67; using input speech data to adapt speaker-dependent models for the user*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to improve speech recognition accuracy by using user-specific speech models.

7. Regarding claim 52, Saylor et al. disclose a voice portal hosting system allowing a plurality of users to establish a connection with said system using voice equipment for interacting with one or more of a plurality of service providers, said system comprising:

means for independently uploading a plurality of interactive voice response applications from said service providers, to said system, via a communication channel (*col. 20, line 64 to col. 21, line 45 and or referring to figure 3, content provider 70 provides information to VPAGE Server 22*), each of said voice response applications for providing interactive voice response functionality for a corresponding one of said service providers when executed by said hosting system (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45*);

means for storing said plurality of interactive voice response applications (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45*);

a common speech recognition module (*voice to text system 62 in figure 3*);

means for storing a plurality of speech models adapted to specific users for use by the common speech recognition module (*voice to text system 62 in figure 3, uses system speech recognition models to recognize speech*);

a user identification module for identifying a user calling said system via another communication channel (*col. 7, line 58 to col. 8, line 15*);

means for retrieving the speech model of the identified user from said plurality of models (*voice to text system 62 in figure 3, uses system speech recognition models to recognize speech*), wherein

the identified user interacts with one or more of said interactive voice response applications (*col. 8, lines 1-38, identified is allowed to access voice services*); and

wherein each of said interactive voice response applications includes an executable component for execution by said hosting system (*VPAGE Database 50 in figure 3, voice response application includes TML, XML, VoiceXML, WML, and others in col. 21, lines 10-45; these are executable components*).

Saylor et al. fail to specifically disclose means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module; means for retrieving the user-specific speech model of the identified user from said plurality of models; and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user; said user-specific speech model is further adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized for future ordering of products and/or services from any other of said service providers.

However, Kuhn et al. teach means for storing a plurality of user-specific speech models adapted to specific users for use by the common speech recognition module (*figure 7, speaker adaptation*); means for retrieving the user-specific speech model of the identified user from said plurality of models (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and wherein said one or more interactive voice response applications utilize said retrieved user-specific speech models via said common speech recognition module for recognizing speech of the identified user (*the operation of figure 7 and elements 32; 34; 26 in figure 2*); and said user-specific speech model is further

adapted to the specific user during said ordering of said product and/or services from any one of said service providers such that said further adapted model is then utilized for future ordering of products and/or services from any other of said service providers (*referring to the operation of figure 5 and/or col. 9, line 29-67; using input speech data to adapt speaker-dependent models for the user*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to improve speech recognition accuracy by using user-specific speech models.

8. Regarding claims 2-5 and 31-35, Saylor et al. further disclose the voice portal hosting system, wherein said common speech recognition module comprises a common user profile database (*col. 7, line 58 to col. 8, line 15*), and wherein said common user profile database includes user preferences (*col. 7, line 58 to col. 8, line 15*), and wherein said user preferences include a delivery address for goods and/or services ordered with said value-added service providers (*col. 7, line 58 to col. 8, line 15*), wherein said user preferences include a billing address and/or preferences for goods and services ordered with said value-added service providers (*col. 7, line 58 to col. 8, line 15*), wherein said common speech recognition module uses user-specific speech models (*col. 7, line 58 to col. 8, line 15, voice print authentication*).

9. Regarding claims 20-24, 26-28, and 44-49, Saylor et al. further disclose the voice portal hosting system, wherein at least a plurality of said interactive voice response applications use a common billing module and a common clearing center for dispatching the collected amounts to said value-added service providers (*Billing Module 46 in figure 2*), wherein said common billing module allows for the billing of transactions between said users and said value-added service providers on a common bill prepared by the operator of said voice portal hosting system (*Billing Module 46 in figure 2*), and wherein at least a plurality of said users have a deposit account on said voice portal hosting system which can be used for transactions with a plurality of said value-added service providers (*Billing Module 46 in figure 2*), wherein at least a plurality of said interactive voice response applications use a user authentication module based on an electronic signature and/or on biometric parameters of said users (*col. 7, line 58 to col. 8, line 15, voice print authentication*), wherein said second telecommunication network is a TCP/IP network (*col. 14, lines 5-25 and/or referring to network 20 in figures 1-3*), wherein at least some of said interactive voice response applications are described with VoiceXML documents (*col. 21, lines 10-45*), wherein at least one free interactive voice response application is made available by the operator of the system (*col. 21, lines 10-45*), and wherein said free interactive voice response application includes a free directory assistance service (*col. 36, line 53 to col. 37, line 8*).

10. Regarding claims 7-8 and 36, Saylor et al. fail to specifically disclose the voice portal hosting system, wherein said common speech recognition module uses user-

specific speech models, means for adapting said common speech models associated to a user during each dialogue between said user and each of said interactive voice response applications, and wherein said means for adapting said common speech models uses recorded users' speech samples for adapting said common speech models off-line.

However, Kuhn et al. teach speech recognition module using user-specific speech models (*figure 2, speech recognizer uses adapted speech models*), means for adapting said common speech models associated to a user during each dialogue between said user and each of said interactive voice response applications (*figure 7 or 34 in figure 2*), and wherein said means for adapting said common speech models uses recorded users' speech samples for adapting said common speech models off-line (*the operation of figure 7*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to improve speech recognition accuracy.

11. Regarding claims 9-10, Saylor et al. fail to specifically disclose the voice portal hosting system of claim 1, wherein said common speech recognition module uses Hidden Markov Models, and further comprising a Hidden Markov Models adaptation module for adapting said models to said user, and wherein said Hidden Markov

Models adaptation module allows for an incremental adaptation of said models.

However, Kuhn et al. teach a common speech recognition module uses Hidden Markov Models, and further comprising a Hidden Markov Models adaptation module for adapting said models to said user (*figure 7*), and wherein said Hidden Markov Models adaptation module allows for an incremental adaptation of said models (*figure 7*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to improve speech recognition accuracy.

12. Regarding claims 11-12 and 37-38, Saylor et al. fail to specifically disclose the voice portal hosting system, wherein said common speech recognition module uses user-specific language models, and means for adapting said common language models associated to a user during each dialogue between said user and each of said interactive voice response applications. However, Kuhn et al. teach a common speech recognition module uses user-specific language models (*the operation of figure 7 and elements 32; 34; 26 in figure 2*), and means for adapting said common language models associated to a user during each dialogue between said user and each of said interactive voice response applications (*figure 7, speaker adaptation is done during speech dialog with the system*).

Since Saylor et al. and Kuhn et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the

time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al in order to improve speech recognition accuracy.

13. Regarding claims 15, 18-19, 39, and 42-43, Saylor et al. fail to specifically disclose the voice portal hosting system, wherein at least a plurality of said interactive voice response applications use a common user identification module run on said system, wherein said user identification module uses a voice-based user identification module, wherein said common speech recognition module uses a speaker-dependant speech recognition algorithm, and wherein said speaker is identified by said common user identification module.

However, Kuhn et al. further teach that at least a plurality of said interactive voice response applications use a common user identification module run on said system, wherein said user identification module uses a voice-based user identification module, wherein said common speech recognition module uses a speaker-dependant speech recognition algorithm, and wherein said speaker is identified by said common user identification module (*the operation of figure 2*).

Since Saylor et al. and Kuhn are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Kuhn et al. in order to identify the user and the user's profile for used by the speech recognition to improve speaker recognition accuracy by using speech speaker-dependent codebook trained by users in advance.

14. Regarding claim 66, Saylor et al. further disclose the method of claim 65, wherein said adapted retrieved user-specific speech and language model is made available for use by all others of said interactive voice response applications of the other providers (*speech recognizer of Saylor inherently includes speech models and language models in order for the recognizer to function*).

15. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al. (US 6792086) in view of Kuhn et al. (US 6341264), as applied to claim 1, and further in view Beyda et al. (US 6487277).

16. Regarding claims 13-14, Saylor et al. fail to specifically disclose a voice portal hosting system of claim 1, wherein said common speech recognition module uses selections previously made by said users, and wherein said selections previously made by said users are stored in said voice portal hosting system for improving the arborescence of the menus. However, Beyda et al. teach common speech recognition module uses selections previously made by said users, and wherein said selections previously made by said users are stored in said voice portal hosting system for improving the arborescence of the menus (*see abstract*).

Since Saylor et al. and Beyda et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Beyda et al. in

order to tailor the presentation order to the needs of each individual user to improve system's efficiency.

17. Claims 16-17 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saylor et al. (US 6792086) in view of Kuhn et al. (US 6341264), as applied to claims 15 and 39, respectively, and further in view of Woods et al. (US 6510417).

18. Regarding claims 16-17 and 40-41, Saylor et al. fail to specifically disclose that the user identification module uses an identification of the equipment used by said user in said first telecommunication network, and being operated by a telecom operator of said first telecommunication network, wherein said user identification module uses an identification of the equipment used by said user in said first telecommunication network even when said identification is not available for the other B-subscribers of said first telecommunication network. However, Woods et al. teach that the user identification module uses an identification of the equipment used by said user in said first telecommunication network, and being operated by a telecom operator of said first telecommunication network, wherein said user identification module uses an identification of the equipment used by said user in said first telecommunication network even when said identification is not available for the other B-subscribers of said first telecommunication network (*col. 24, lines 39-41*).

Since Saylor et al. and Woods et al. are analogous art because they are from the same endeavors, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Saylor et al. by incorporating the teaching of Woods et al. in order to allow the system to automatically authenticate users based on their phone numbers by using caller-ID procedure.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN X. VO whose telephone number is (571)272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Huyen X Vo/
Primary Examiner, Art Unit 2626

2/25/2008
